

Mississippi State University
Notice of Proposed Sole Source Purchase
156-04

Mississippi State University anticipates purchasing the item(s) listed below as a sole source purchase. Anyone objecting to this purchase shall follow the procedures outlined below.

1. Commodity or commodities to be purchased (make, model, description):

Name of the equipment: Cyanotoxin Automated Assay System (CAAS)

Manufacturer: Abraxis LLC, 54 Steamwhistle Drive, Warminster, PA 18974

Description: For the analysis of cyanotoxins including but not limited to Microcystins/Nodularin (ADDA), Cylindrospermopsin, Saxitoxins and Anatoxin-a using ELISA and RBA kits plus associated system technologies covered under U. S. Patent numbers 5,576,187 & 5,780,250.

2. Explanation of the need to be fulfilled by this item(s) and why it is the only one that can meet the specific needs of the department:

The equipment will be used to measure the toxin concentrations in algal cells, mainly for determining microcystin concentration in cyanobacteria, domoic acid concentrations in diatoms, and brevetoxin concentrations in dinoflagellates in the water samples. It is an automated microtiter plate format analyzer for quantitative determination of cyanotoxins including but not limited to anatoxin-a, BMAA, cylindrospermopsin, microcystins and saxitoxins. The analyzer is computer controlled and capable of automating all the steps of both ELISA and RBA assays including fluid handling, plate mixing, incubation/timing, optical reading, calculations and reports. Besides easy and reliable automation for cyanotoxin testing, the system produces near perfect assay results and multiple assays can be run simultaneously.

Algal toxin concentration measurement using ELISA assays on plate readers, if done manually from filtered water samples, is a very time consuming and laborious process. These experiments take approximately eighteen hours (e.g. from 9 am in the morning to 3 am in the night) at a stretch if done using conventional plate readers. Because of these long hours, not only it is tiresome for someone to run these experiments, but also the samples degrade over time while processing which introduces errors. Due to the manual process, human errors are also introduced. Abraxis Inc. came up with the CAAS that automates the whole process, whereby the samples can be inserted into the equipment and the equipment will process the samples step by step and provide the results automatically. Hence, it is not only very convenient, but produces highly accurate results. Moreover, it doesn't require the person handling it to be an expert unlike the manual way of doing it using plate readers. In addition, it is a small equipment, which is easy to handle even by undergraduate students.

Hence, an automated system like CAAS would be an ideal equipment for our laboratory to measure algal toxins especially since we would like students to process the samples.

3. Name of company/individual selling the item and why that source is the only possible source that can provide the required item(s):

There is no other manufacturer that makes this type of equipment except Abraxis I.L.C., 54 Steamwhistle Drive, Warminster, PA 18974. Abraxis is devoted to the design, development and manufacturing of immunochemistry products and methods to meet the testing needs of research and industry. They sell many types of ELISA kits for algal toxin measurement. This year Abraxis Inc. came up with the CAAS for automatic measurement of algal toxins under U. S. Patent numbers 5,576,187 & 5,780,250. No one else has designed this type of equipment.

4. Estimated cost of item(s) and an explanation why the amount to be expended is considered reasonable:

The cost of this equipment is \$24,000. With training and shipping it becomes \$26,800. With educational discount, a price of \$25,600 has been quoted to us. The equipment contains a plate reader and other mechanical parts to process 96 samples at a time. Algal toxins can also be measured using High Performance Liquid Chromatography (HPLC) or Mass Spectrometer (MS) using a different technique, however, those equipment are very expensive and complex in nature. A dedicated technician will be required to manage those equipment. Also, they should be completely dedicated to algal toxin measurement. In contrast, CAAS uses ELISA assay technique which is a relatively simple technique. ELISA assays could also be done using inexpensive plate readers, but as outlined above, this manual process is not only time and labor intensive, but also inaccurate. Also, the procedure requires an expert to do it. The features considered unique to the CAAS are that it makes the toxin measurement so easy that the students can measure the toxin concentrations. It produces equally accurate results as more sophisticated equipment such as HPLC or Mass Spectrometer, but is not as complicated to handle as it is for HPLC or Mass Spec. Hence this equipment was chosen in compared to other fancy and more sophisticated equipment. In addition, it is a small equipment, which is easy to handle even by undergraduate students. Hence, an automated system like CAAS would be an ideal equipment for our laboratory to measure algal toxins since we would like students to process the samples.

5. Explanation of the efforts taken by the department to determine this is the only source and the efforts used to obtain the best possible price:

The PI has spoken to the manufacturer about the equipment in detail, has watched a video that explains how the equipment works and read on the website about how unique this equipment is before determining the requirement for this equipment in his laboratory. He has searched on the internet if this type of equipment is available from any other distributor and found that this item is not available from other distributors. Also, he has asked Abraxis

Inc., upon which they supplied him with the sole source letter. The manufacturer Abraxis Inc. sells this product directly to end users in the United States.

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit a written notice to:

Don Buffum, CPPO

Director of Procurement & Contracts

dbuffum@procurement.msstate.edu

Subject Line must read "Sole Source Objection"

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, MSU determines that the commodity in the proposed sole source request can be provided by another person or entity, then MSU will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process.

If MSU determines after review that there is only one (1) source for the required commodity, then MSU will appeal to the Public Procurement Review Board. MSU will have the burden of proving that the commodity is only provided by one (1) source.